

### CLAIMS

1. A method to release, by means of a Path\_Tear Message, a Label Switched Path (LSP) established between linked routers (A, B, C, D, E) of a telecommunication network,

5       said routers being linked in cascade according to a Main Path (AB, BC, CD, DE) and being further linked in another order according to at least one Detour Path (ac, ce, bd),

**characterized in that** said Path\_Tear Message includes a tag indicating, to the router receiving said Path\_Tear Message, whether said Path\_Tear Message should be immediately forwarded  
10       towards a downstream-located router.

**2. The release method according to claim 1, characterized in that** said Path\_Tear Message is received, in the receiving router, via a said Detour Path (ac, ce, bd) linking an upstream-located router  
15       to said receiving router.

**3. The release method according to claim 1, characterized in that** said tag further indicates through which of said Main Path (AB, BC, CD, DE) or said Detour Path (ac, ce, bd) or both, starting  
20       from the receiving router, said Path\_Tear Message should be immediately forwarded towards said downstream-located router.

**4. The release method according to claim 1, characterized in that,** for said router receiving said Path\_Tear Message, said release method further comprises a step of releasing all the Label Switched Paths (LSP) arriving at this receiving router from upstream-located routers via said Main Path (AB, BC, CD, DE) and via said Detour Path (ac, ce, bd) linking said upstream-located routers and said receiving  
25       router.  
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5. The release method according to claim 1, **characterized in that** said tag further indicates which Label Switched Paths (LSPs) to release, **and in that**, for the router receiving said Path\_Tear Message, said release method comprises a step of releasing immediately each Label Switched Path indicated by said tag.

6. The release method according to claim 5, **characterized in that** said tag is a Sender Template whereof can be derived the Label Switched Paths to release.

7. A telecommunication network with a plurality of routers (A, B, C, D, E) interconnected via links through which Label Switched Paths (LSP) are established,  
said routers being linked in cascade according to a Main Path (AB, BC, CD, DE) and being further linked in another order according to at least one Detour Path (ac, ce; bd),

and said routers being adapted to transmit a Path\_Tear Message towards downstream-located routers, said Path\_Tear Message indicating that a Label Switched Path (LSP) has to be released,

**characterized in that** the router transmitting said Path\_Tear Message is adapted to include in said Path\_Tear Message a tag indicating, to the router receiving said Path\_Tear Message, whether said Path\_Tear Message should be immediately forwarded towards a downstream-located router,

**and in that** the receiving router is adapted to detect said tag in said received Path\_Tear Message, to release each Label Switched Path indicated by said tag, and, according to said tag, to forward immediately said Path\_Tear Message towards said downstream-located router.

8. The telecommunication network according to claim 7,  
**characterized in that** said tag further indicates through which path  
said Path\_Tear Message should be forwarded downstream,

5           **and in that**, according to said tag, said receiving router is  
further adapted to forward immediately said Path\_Tear Message  
towards said downstream-located router through said Main Path (AB,  
BC, CD, DE) or through said Detour Path (ac, ce, bd) or through both.

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**characterized in that** said receiving router is adapted to release all  
the Label Switched Paths (LSPs) arriving at said receiving router from  
upstream-located routers via said Main Path (AB, BC, CD, DE) and via  
said Detour Path (ac, ce, bd) linking said upstream-located routers and  
15   said receiving router.

10. The telecommunication network according to claim 7,  
**characterized in that** said tag further indicates which Label  
Switched Paths (LSPs) to be released,

20           **and in that** said receiving router is adapted to release  
immediately each Label Switched Path indicated by said tag.

11. The telecommunication network according to claim 7,  
**characterized in that** said receiving router is further adapted to  
25   transmit, towards an upstream-located router, a Reserved\_Tear  
Message including a said tag,

**in that** said upstream-located router is adapted to transmit  
said Reserved\_Tear Message towards a downstream-located router,

**and in that** said downstream-located router is adapted

to immediately generate a Path\_Tear Message including said tag,  
and

to immediately forward said Path\_Tear Message towards another  
downstream-located router.

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12. The telecommunication network according to claim 7,  
**characterized in that** both said Main Path (AB, BC, CD, DE) and at  
least one Detour Path (ac, ce; bd) arrive at said receiving router.

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13. The telecommunication network according to claim 7,  
**characterized in that** said telecommunication network is a Multi-  
Protocol Label Switching [MPLS] telecommunication network.

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14. The telecommunication network according to any of the  
claims 7 to 13, **characterized in that** said routers are adapted to  
operate according to the release method as mentioned in any of the  
claims 1 to 6.